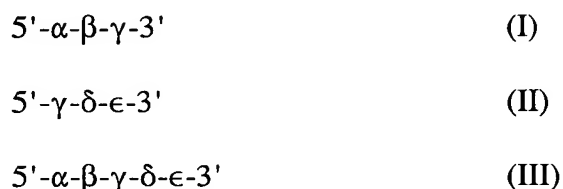


AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Presently amended) A purified preparation containing a polynucleotide encoding at least one polypeptide encoded by one or more open reading frames (ORF's) of ORFs 1-7 of a porcine reproductive and respiratory syndrome virus (PRRSV) wherein said polynucleotide has a sequence selected from the group consisting of the formulas (I), (II) and (III):



wherein:

α encodes at least one polypeptide encoded by a polynucleotide selected from the group consisting of ORF 1a and 1b, ORF 2 and ORF 3 of the PRRSV;

β is either a covalent bond or a linking polynucleic acid which does not cause a decrease in the severity of gross and microscopic pneumonia lesions caused by the PRRSV;

γ is at least one copy of an ORF 5 from the PRRSV;

δ is a covalent bond or a linking polynucleic acid which does not materially affect transcription and/or translation of said polynucleic acid; and

ϵ encodes at least one polypeptide encoded by a polynucleotide selected from the group consisting of ORF 6 and ORF 7 of the PRRSV;

and when δ is a covalent bond, γ may have a 3'-end which excludes the region overlapping with the 5'-end of a corresponding ORF 6.

2. (Canceled)

3. (Presently amended) A purified preparation containing a polynucleotide encoding at least one polypeptide encoded by one or more open reading frames (ORF's) of ORFs 1-7 of a porcine reproductive and respiratory syndrome virus (PRRSV) wherein the virus is characterized as highly virulent as determined by its ability to induce lesions in at least 51.9% of lung tissue 10 days post-inoculation of five-week-old colostrum-deprived, caesarean-derived pigs with 10^5 TCID₅₀ of said virus, and wherein said polynucleotide comprises multiple copies of ORF 5.

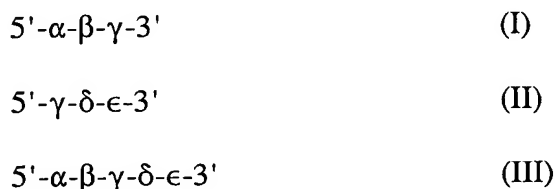
4.-5. (Canceled)

6. (Presently amended) The purified preparation of Claim 1, wherein said polynucleotide comprises ORF 2, ORF 3, ORF 5, ORF 6 or ORF 7 of any one of VR 2385, VR 2386, VR 2429, VR 2484 or VR 2475, or combinations thereof.

7. (Presently amended) The purified preparation of Claim 1, wherein said polypeptide is encoded by at least one of ORF's 2, 3, 5, and 6 of the viruses VR 2385, VR 2386, VR 2429, VR 2484 or VR 2475.

Claims 8-38 (Canceled)

39. (New) A purified preparation containing a polynucleotide encoding at least one polypeptide encoded by one or more open reading frames (ORF's) of the viruses ISU-51 (VR 2428), ISU-55 (VR 2430), ISU-3927 (VR 2431) or ISU-1894 (VR 2475), wherein said polynucleotide has a sequence selected from the group consisting of the formulas (I), (II) and (III):



wherein:

α encodes at least one polypeptide encoded by a polynucleotide selected from the group consisting of ORF 1a and 1b, ORF 2 and ORF 3 of the PRRSV;

β is either a covalent bond or a linking polynucleic acid which does not cause a decrease in the severity of gross and microscopic pneumonia lesions caused by the PRRSV;

γ is at least one copy of an ORF 5 from the PRRSV;

δ is either a covalent bond or a linking polynucleic acid which does not materially affect transcription and/or translation of said polynucleic acid; and

ϵ encodes at least one polypeptide encoded by a polynucleotide selected from the group consisting of ORF 6 and ORF 7 of the PRRSV;

and when δ is a covalent bond, γ may have a 3'-end which excludes the region overlapping with the 5'-end of a corresponding ORF 6.

40. (New) A purified preparation containing a polynucleotide encoding at least one polypeptide encoded by one or more open reading frames (ORF's) of the viruses ISU-51 (VR 2428), ISU-55 (VR 2430), ISU-3927 (VR 2431) or ISU-1894 (VR 2475), wherein said ORF 5 is from a PRRSV comprising multiple copies of ORF 5.

41. (New) The purified preparation of Claim 39, wherein said polynucleotide comprises ORF 2, ORF 3, ORF 5, ORF 6 or ORF 7 of any one of VR 2428, VR 2430, VR 2431, or VR 2475, or ORF combinations thereof.

42. (New) The purified preparation of Claim 39, wherein said polypeptide is encoded by at least one of ORF's 2, 3, 5, and 6 of VR 2428, VR 2430, VR 2431, or VR 2475.

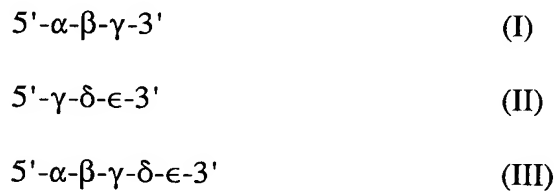
43. (New) A purified preparation of Claim 1 or Claim 39, containing one or more polynucleotide at least

- (a) 98% identical to ORF 6 of the virus, or
- (b) 98% identical to ORF 7 of the virus;

wherein the identity is determined using the following parameters:

- (i) a cost to open a gap 5;
- (ii) a cost to lengthen a gap of 25;
- (iii) a minimum diagonal length of 4; and
- (iv) a maximum diagonal offset of 10.

44. (New) The purified preparation of Claim 43, wherein said polynucleotide has a sequence selected from the group consisting of the formulas (I), (II) and (III):



wherein:

α encodes at least one polypeptide encoded by a polynucleotide selected from the group consisting of ORF 1a and 1b, ORF 2 and ORF 3 of the viruses of Claim 43;.

β is either a covalent bond or a linking polynucleic acid which does not cause a decrease in the severity of gross and microscopic pneumonia lesions caused by the PRRSV of Claim 43;

γ is at least one copy of an ORF 5 from the PRRSV of Claim 43;

δ is either a covalent bond or a linking polynucleic acid which does not materially affect transcription and/or translation of said polynucleic acid; and

ϵ encodes at least one polypeptide encoded by a polynucleotide selected from the group consisting of ORF 6 and ORF 7 of the PRRSV of Claim 43;

and when δ is a covalent bond, γ may have a 3'-end which excludes the region overlapping with the 5'-end of a corresponding ORF 6.

45. (New) The purified preparation of Claim 44, wherein said ORF 5 is comprised of multiple copies of ORF 5.

46. (New) The purified preparation of Claim 3, wherein said polynucleotide comprises ORF 2, ORF 3, ORF 5, ORF 6 or ORF 7 of any one of VR 2385, VR 2386, VR 2429, VR 2484 or VR 2475, or combinations thereof.

47. (New) The purified preparation of Claim 3, wherein said polypeptide is encoded by at least one of ORF's 2, 3, 5, and 6 of the viruses VR 2385, VR 2386, VR 2429, VR 2484 or VR 2475.

48. (New) The purified preparation of Claim 3, containing one or more polynucleotide at least

(a) 98% identical to ORF 6 of the virus, or

(b) 98% identical to ORF 7 of the virus;

wherein the identity is determined using the following parameters:

(i) a cost to open a gap 5;

(ii) a cost to lengthen a gap of 25;

(iii) a minimum diagonal length of 4; and

(iv) a maximum diagonal offset of 10.

49. (New) The purified preparation of Claim 48, wherein said polynucleotide has a sequence selected from the group consisting of the formulas (I), (II) and (III):

5'- α - β - γ -3' (I)

5'- γ - δ - ϵ -3' (II)

5'- α - β - γ - δ - ϵ -3' (III)

wherein:

α encodes at least one polypeptide encoded by a polynucleotide selected from the group consisting of ORF 1a and 1b, ORF 2 and ORF 3 of the viruses of Claim 48;

β is either a covalent bond or a linking polynucleic acid which does not cause a decrease in the severity of gross and microscopic pneumonia lesions caused by the PRRSV of Claim 48;

γ is at least one copy of an ORF 5 from the PRRSV of Claim 48;

δ is either a covalent bond or a linking polynucleic acid which does not materially affect transcription and/or translation of said polynucleic acid; and

ϵ encodes at least one polypeptide encoded by a polynucleotide selected from the group consisting of ORF 6 and ORF 7 of the PRRSV of Claim 48;

and when δ is a covalent bond, γ may have a 3'-end which excludes the region overlapping with the 5'-end of a corresponding ORF 6.

50. (New) The purified preparation of Claim 40, wherein said polynucleotide comprises ORF 2, ORF 3, ORF 5, ORF 6 or ORF 7 of any one of VR 2385, VR 2386, VR 2429, VR 2484 or VR 2475, or combinations thereof.

51. (New) The purified preparation of Claim 40, wherein said polypeptide is encoded by at least one of ORF's 2, 3, 5, and 6 of the viruses VR 2385, VR 2386, VR 2429, VR 2484 or VR 2475.

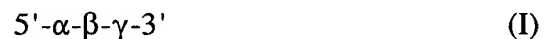
52. (New) A purified preparation of Claim 40, containing one or more polynucleotide at least

- (a) 98% identical to ORF 6 of the virus, or
- (b) 98% identical to ORF 7 of the virus;

wherein the identity is determined using the following parameters:

- (i) a cost to open a gap 5;
- (ii) a cost to lengthen a gap of 25;
- (iii) a minimum diagonal length of 4; and
- (iv) a maximum diagonal offset of 10.

53. (New) The purified preparation of Claim 52, wherein said polynucleotide has a sequence selected from the group consisting of the formulas (I), (II) and (III):



5'- α - β - γ - δ - ϵ -3' (III)

wherein:

α encodes at least one polypeptide encoded by a polynucleotide selected from the group consisting of ORF 1a and 1b, ORF 2 and ORF 3 of the viruses of Claim 52;

β is either a covalent bond or a linking polynucleic acid which does not cause a decrease in the severity of gross and microscopic pneumonia lesions caused by the PRRSV of Claim 52;

γ is at least one copy of an ORF 5 from the PRRSV of Claim 52;

δ is either a covalent bond or a linking polynucleic acid which does not materially affect transcription and/or translation of said polynucleic acid; and

ϵ encodes at least one polypeptide encoded by a polynucleotide selected from the group consisting of ORF 6 and ORF 7 of the PRRSV of Claim 52;

and when δ is a covalent bond, γ may have a 3'-end which excludes the region overlapping with the 5'-end of a corresponding ORF 6.